

Attorney Docket No.: 42.P10104

Application No.: 09/835,034

Page 3

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (currently amended) A method to determine when to send a signal, comprising: receiving a set of durations, the set of durations including at least two time durations, each duration corresponding to a respective action signal to be sent at the end of the respective duration;

determining an expiration time corresponding to each duration;

selecting the expiration time that is first to occur to provide a selected expiration time;

determining when the selected expiration time occurs by setting a clock to send a signal at the expiration time; and

sending the action signal corresponding to the selected expiration time when the selected expiration time occurs.

2. (original) The method of claim 1, wherein determining an expiration time corresponding to each duration includes determining a received time for each duration.

3. (original) The method of claim 2, wherein determining an expiration time corresponding to each duration further includes adding each duration to its corresponding received time.

4. (original) The method of claim 1, wherein selecting the expiration time that is first to occur includes comparing the expiration times to determine which of the expiration times is first to occur.

5. (canceled)

6. (original) A method to determine when to send a signal, comprising: determining a first expiration time and a second expiration time;

*Attorney Docket No.: 42.P10104**Application No.: 09/835,034**Page 4*

comparing the first expiration time to the second expiration time;

selecting the first expiration time if the first expiration time is less than the second expiration time, and selecting the second expiration time if the second expiration time is less than the first expiration time, and selecting both the first and second expiration times if the first expiration time is approximately equal to the second expiration time;

if the first expiration time is not approximately equal to the second expiration time, setting a signal send time approximately equal to the selected one of the first expiration time and the second expiration time, and if the first expiration time is approximately equal to the second expiration time, setting a signal send time approximately equal to the first and second expiration time;

determining a start time;

determining a time difference between the signal send time and the start time;

setting a time period approximately equal to the time difference;

setting a timer to send a call back signal at the end of the time period;

starting the timer at the start time; and

once the timer sends the call back signal, sending the first action signal if the first expiration time was selected, and sending the second action signal if the second expiration time was selected.

7. (original) The method of claim 6, further comprising:

receiving a first time duration corresponding to a first action signal; and

determining a first received time corresponding to a current time indicated by a clock when the first time duration was received.

8. (original) The method of claim 7, wherein the first expiration time is approximately equal to the first received time plus the first time duration.

9. (original) The method of claim 6, further comprising, once the timer sends the call back signal:

*Attorney Docket No.: 42.P10104**Application No.: 09/835,034**Page 5*

selecting a next expiration time, the next expiration time corresponding to the first expiration time if the first expiration time was not previously selected, and the next expiration time corresponding to the second expiration time if the second expiration time was not previously selected;

determining a new start time;

determining a new time difference between the next expiration time and the new start time;

setting a new time period approximately equal to the new time difference;

setting the timer to send a new call back signal at the end of the new time period; and

starting the timer at the new start time.

10. (original) The method of claim 6, further comprising:

checking a first indicator upon sending the first action signal, the first indicator corresponding to whether the first action signal should be sent again; and

determining a third expiration time if the first indicator indicates the first action signal should be sent again.

11. (original) A method to determine when to send a signal, comprising:

receiving a set of durations, the set of durations including at least two time durations, each duration corresponding to a respective action signal to be sent at the end of the respective duration;

determining a received time for each duration;

determining an expiration time corresponding to each duration to provide a set of expiration times, each expiration time being approximately equal to the corresponding received time plus the corresponding time duration;

comparing the expiration times to determine which of the expiration times is first to occur;

selecting the expiration time that is first to occur to provide a selected expiration time;

determining a start time;

*Attorney Docket No.: 42.P10104**Application No.: 09/835,034**Page 6*

determining a time difference between the selected expiration time and the start time;
setting a time period approximately equal to the time difference;
setting a timer to send a call back signal at the end of the time period;
starting the timer at the start time; and
once the timer sends the call back signal, sending the action signal that corresponds to the selected expiration time.

12. (original) The method of claim 11, further comprising:
selecting from the set of expiration times the expiration time that is next to occur;
determining a new start time;
determining a new time difference between the selected expiration time that is next to occur and the start time;
setting a new time period approximately equal to the new time difference;
starting the timer at the new start time; and
once the timer sends the call back signal, sending the action signal that corresponds to the selected expiration time that is next to occur.

13. (original) The method of claim 11, further comprising adding to the set of expiration times an expiration time approximately equal to the time the action signal was sent plus the corresponding duration.

14. (original) The method of claim 11, further comprising:
checking an indicator corresponding to the sent action signal to determine whether the indicator is turned on or turned off;
if the indicator is turned on, determining an expiration time approximately equal to the time the action signal was sent plus the corresponding duration.

15. (original) A method to determine when to send a signal, comprising:
receiving first timing information corresponding to a first action signal, the first timing

*Attorney Docket No.: 42.P10104
Application No.: 09/835,034
Page 7*

information including a first duration and a first flag;

if the first flag indicates an active status, determining a first expiration time, and including the first expiration time in a set of expiration times to be considered;

receiving second timing information corresponding to a second action signal, the second timing information including a second duration and a second flag;

if the second flag indicates an active status, determining a second expiration time and including the second expiration time in the set of expiration times;

selecting an expiration time in the set that will occur first, to provide a selected expiration time;

determining a start time;

determining a time difference between the selected expiration time and the start time;

setting a time period approximately equal to the time difference;

setting a timer to send a call back signal at the end of the time period;

starting the timer at the start time; and

once the timer sends the call back signal, sending an action signal that corresponds to the selected expiration time.

16. (original) The method of claim 15, wherein at least one of the flags corresponding to the selected expiration time is set to an inactive status once the corresponding action signal is sent.

17. (original) The method of claim 15, wherein the first timing information further includes a first indicator, and the method further comprises:

upon sending the first action signal, determining whether the indicator is turned on or turned off;

determining whether the first flag indicates an active status;

if the first flag indicates an active status and the indicator is turned on, determining a third expiration time corresponding to the first action signal and including the third expiration time in the set of expiration times;

*Attorney Docket No.: 42.P10104**Application No.: 09/835,034**Page 8*

selecting from the set an expiration time that will next occur to provide a new selected expiration time;
determining a new start time;
setting the time period approximately equal to a difference between the new selected expiration time and the new start time;
starting the timer at the new start time; and
once the timer sends the call back signal, sending action signals that correspond to the new selected expiration time.

18. (original) The method of claim 15, wherein the first timing information includes a first indicator, and the method further comprises:

upon sending the first action signal, determining whether the first indicator is turned on or turned off; and
if the first indicator is turned off, setting the first flag to an inactive status.

19. (currently amended) An article of manufacture comprising a computer usable medium having computer readable program code instructions embodied therein to cause a computer to determine when to send a signal, the instructions having:

a computer readable program code module to receive a set of durations, the set of durations including at least two time durations, each duration corresponding to a respective action signal to be sent at the end of the respective duration;

a computer readable program code module to determine an expiration time corresponding to each duration;

a computer readable program code module to select the expiration time that is first to occur to provide a selected expiration time;

a computer readable program code module to set a clock to send a signal at the expiration time; and

a computer readable program code module to send the action signal corresponding to the selected expiration time when the selected expiration time occurs.

*Attorney Docket No.: 42.P10104
Application No.: 09/835,034
Page 9*

20. (previously presented) The article of manufacture of claim 19, wherein the instructions further have a computer readable program code module to determine a received time for each duration.

21. (previously presented) The article of manufacture of claim 20, wherein the instructions further have a computer readable program code module to add each duration to its corresponding received time.

22. (previously presented) The article of manufacture of claim 19, wherein the instructions further have a computer readable program code module to compare the expiration times to determine which of the expiration times is first to occur.

23. (canceled)

24. (original) An article of manufacture comprising a computer usable medium having computer readable program code instructions embodied therein to cause a computer to determine when to send a signal, the instructions having:

a computer readable program code module to determine a first expiration time;

a computer readable program code module to determine a second expiration time;

a computer readable program code module to compare the first expiration time to the second expiration time;

a computer readable program code module to select the first expiration time if the first expiration time is less than the second expiration time, and to select the second expiration time if the second expiration time is less than the first expiration time, and to select both the first and second expiration times if the first expiration time is approximately equal to the second expiration time;

a computer readable program code module to set a signal send time approximately equal to the selected one of the first expiration time and the second expiration time if the first

*Attorney Docket No.: 42.P10104
Application No.: 09/835,034
Page 10*

expiration time is not approximately equal to the second expiration time, and to set a signal send time approximately equal to the first and second expiration time if the first expiration time is approximately equal to the second expiration time;

a computer readable program code module to determine a start time corresponding to the current time indicated by the clock;

a computer readable program code module to determine a time difference between the signal send time and the start time;

a computer readable program code module to set a time period of a timer approximately equal to the time difference so a call back signal is sent at the end of the time period;

a computer readable program code module to start the timer at the start time; and

a computer readable program code module to send, once the timer sends the call back signal, the first action signal if the first expiration time was selected, and to send the second action signal if the second expiration time was selected.

25. (original) The article of manufacture of claim 24, wherein the instructions further have:

a computer readable program code module to select a next expiration time once the timer sends the call back signal, the next expiration time corresponding to the first expiration time if the first expiration time was not previously selected, and the next expiration time corresponding to the second expiration time if the second expiration time was not previously selected;

a computer readable program code module to determine a new start time;

a computer readable program code module to determine a new time difference between the next expiration time and the new start time;

a computer readable program code module to set a new time period approximately equal to the new time difference; and

a computer readable program code module to start the timer at the new start time.

26. (original) The article of manufacture of claim 24, wherein the instructions further have:

*Attorney Docket No.: 42.P10104**Application No.: 09/835,034**Page 11*

a computer readable program code module to check a first indicator upon sending the first action signal, the first indicator corresponding to whether the first action signal should be sent again;

a computer readable program code module to determine a third expiration time if the first indicator indicates the first action signal should be sent again.

27. (original) An article of manufacture comprising a computer usable medium having computer readable program code instructions embodied therein to cause a computer to determine when to send a signal, the instructions having:

a computer readable program code module to receive a set of durations, the set of durations including at least two time durations, each duration corresponding to a respective action signal to be sent at the end of the respective duration;

a computer readable program code module to determine an expiration time corresponding to each duration to provide a set of expiration times;

a computer readable program code module to compare the expiration times to determine which of the expiration times is first to occur;

a computer readable program code module to select the expiration time that is first to occur to provide a selected expiration time;

a computer readable program code module to determine a start time;

a computer readable program code module to determine a time difference between the selected expiration time and the start time;

a computer readable program code module to set a time period of a timer approximately equal to the time difference, the timer being capable of sending a call back signal at the end of the time period;

a computer readable program code module to start the timer at the start time; and

a computer readable program code module to send, once the timer sends the call back signal, the action signal corresponding to the selected expiration time.

28. (original) The article of manufacture of claim 27, wherein the instructions further

*Attorney Docket No.: 42.P10104
Application No.: 09/835,034
Page 12*

have:

a computer readable program code module to select from the set of expiration times the expiration time that is next to occur;

a computer readable program code module to determine a new start time;

a computer readable program code module to determine a new time difference between the selected expiration time that is next to occur and the start time;

a computer readable program code module to set the time period approximately equal to the new time difference;

a computer readable program code module to start the timer at the new start time; and

a computer readable program code module to send, once the timer sends the call back signal, the action signal corresponding to the selected expiration time that is next to occur.

29. (original) The article of manufacture of claim 27, wherein the instructions further have

a computer readable program code module to add to the set of expiration times an expiration time approximately equal to the time the action signal was sent plus the corresponding duration.

30. (original) The article of manufacture of claim 27, wherein the instructions further have:

a computer readable program code module to check an indicator corresponding to the sent action signal to determine whether the indicator is turned on or turned off;

a computer readable program code module to add to the set of expiration times an expiration time approximately equal to the time the action signal was sent plus the corresponding duration, if the indicator is turned on.

31. (original) An article of manufacture comprising a computer usable medium having computer readable program code instructions embodied therein to cause a computer to determine when to send a signal, the instructions having:

*Attorney Docket No.: 42.P10104**Application No.: 09/835,034**Page 13*

a computer readable program code module to receive first timing information corresponding to a first action signal, the first timing information including a first duration and a first flag;

a computer readable program code module to determine a first expiration time, if the first flag indicates an active status, and to include the first expiration time in a set of expiration times to be considered;

a computer readable program code module to receive second timing information corresponding to a second action signal, the second timing information including a second duration and a second flag;

a computer readable program code module to determine a second expiration time, if the second flag indicates an active status, and to include the second expiration time in the set of expiration times;

a computer readable program code module to select an expiration time in the set that will occur first, to provide a selected expiration time;

a computer readable program code module to determine a start time;

a computer readable program code module to set a time period of a timer approximately equal to a difference between the selected expiration time and the start time, the timer being capable of sending a call back signal at the end of the time period;

a computer readable program code module to start the timer at the start time; and

a computer readable program code module to send, once the timer sends the call back signal, action signals corresponding to the selected expiration time.

32. (original) The article of manufacture of claim 31, wherein the instructions further have

a computer readable program code module to set at least one of the flags corresponding to the selected expiration time to an inactive status once the corresponding action signal is sent.

33. (original) The article of manufacture of claim 31, wherein the first timing information further includes a first indicator, and the instructions further have:

Attorney Docket No.: 42.P10104

Application No.: 09/835,034

Page 14

a computer readable program code module to determine whether the indicator is turned on or turned off;

a computer readable program code module to determine whether the first flag indicates an active status;

a computer readable program code module to determine a third expiration time corresponding to the first action signal, if the first flag indicates an active status and the indicator is turned on, and to include the third expiration time in the set of expiration times;

a computer readable program code module to select an expiration time in the set that will next occur to provide a new expiration time;

a computer readable program code module to determine a new start time;

a computer readable program code module to set a new time period approximately equal to a difference between the new expiration time and the new start time;

a computer readable program code module to start the timer at the new start time; and

a computer readable program code module to send, once the timer sends the call back signal, action signals corresponding to the new expiration time.

34. (original) The article of manufacture of claim 31, wherein the first timing information further includes a first indicator, and the instructions further have:

a computer readable program code module to determine whether the first indicator is turned on or turned off; and

a computer readable program code module to set the first flag to an inactive status if the first indicator is turned off.